ABSTRACT

A substrate treatment apparatus, comprising a reaction tube (203) and a heater (207) heating a silicon wafer (200), wherein trimethyl aluminum (TMA) and ozone (O_3) are alternately fed into the reaction tube (203) to generate Al_2O_3 film on the surface of the wafer (200). The apparatus also comprises supply tubes (232a) and (232b) for flowing the ozone and TMA and a nozzle (233) supplying gas into the reaction tube (203). The two supply tubes (232a) and (232b) are connected to the nozzle (233) disposed inside the heater (207) in a zone inside the reaction tube (203) where a temperature is lower than a temperature near the wafer (200) and the ozone and TMA are supplied into the reaction tube (203) through the nozzle (233).